To:

National Aeronautics and Space Agency

Washington 25, D. C.

From:

The University of Tennessee

Department of Physics Knoxville, Tennessee

Ref:

SC-NsG-539

Subject:

Third Semi-Annual Report covering the period from 1 November 1964

through 30 April 1965

Date:

14 June 1965

Work performed in this period can be divided into three categories:

1. Design of the spectrometer

This is essentially completed. Some components have been ordered, others are out for bids and quotations. Construction has been started on other components in our Instrument Shop.

2. Theoretical work

Dr. Jacobson has changed from full-time on NsG-539 to half-time. Dr. Kenneth Fox has joined the project on a half-time basis. Each is working on different aspects of applicable theory.

3. Thesis work

Three graduate students are doing thesis research supported by NsG-539. One is doing a theoretical Ph.D. thesis. The other two are doing experimental M.S. theses, using spectrometers of low resolution.

In the next period construction of the spectrometer will continue, as will the theoretical work and the thesis research. The attempt to improve our slit-correcting program will resume, performed by an undergraduate NSF participant.

The next period will be partly during the school year 1964, partly during the school year 1965, and partly during the summer academic vacation. Because of this, it is only possible to give the approximate amount of time to be spent on the project by the personnel working on it. In this period the personnel involved will be: Dr. Gailar, almost full time; Dr. Jacobson, about 3/4 time; Dr. Fox, 1/2 time; one graduate student full time; one graduate student 1/2 time; and two graduate students approximately 3/4 time.

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Respectfully submitted,

norman m. Sailar

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Norman M. Gailar Project Director